Amendments to the Claims:

Listing of Claims

The following listing of claims supersedes all previously pending claims.

1. (currently amended) In a plasma processing system having a plasma reactor, a method of performing partial photo resist etch on a blanket deposited layer of photo resist material, said blanket-deposited layer of photo resist material being disposed above a substrate having thereon surface topologies that include at least a dense region and an isolated region, ~~minimizing the differences in an etch rate of a photo resist material in different regions of a substrate,~~ comprising:

introducing said substrate into said plasma reactor ~~having in sequential order thereon, an underlying layer and said photo resist layer~~;

flowing an ~~said~~ etchant gas mixture into said [[a]] plasma reactor ~~of said plasma processing system~~, said etchant gas mixture comprising an optimal [[a]] flow percentage of a fluorine containing gas between about 0.1% and about 10% of said etchant gas mixture;

striking a plasma from said gas mixture;

etching said photo-resist layer with said plasma, wherein said optimal flow percentage of said fluorine containing gas being configured to leave a substantially uniform thickness of said photo resist material in said dense region and said isolated region after said etching is terminated; and,

removing said substrate from said plasma reactor.

2. (original) The method of claim 1, wherein said etchant gas mixture further comprises flow of oxygen gas.

3. (original) The method of claim 1, wherein said etchant gas mixture further comprises flow of nitrogen gas.

4. (original) The method of claim 1, wherein said flow of a fluorine containing gas is between about 0.1% and about 5% of said etchant gas mixture.

5. (original) The method of claim 1, wherein said flow of a fluorine containing gas is between about 1% and about 2% of said etchant gas mixture.

6. (original) The method of claim 1, wherein said flow of a fluorine containing gas is CF_4.

7. (original) The method of claim 1, wherein said flow of a fluorine containing gas is CHF_3

8. (original) The method of claim 1, wherein said flow of a fluorine containing gas is CH_2F_2.

9. (original) The method of claim 1, wherein said flow of a fluorine containing gas is CH_3F.

10. (original) The method of claim 1, wherein said flow of a fluorine containing gas is C_2F_2.

11. (original) The method of claim 1, wherein said substrate is semiconductor wafer.

12. (original) The method of claim 1, wherein substrate is a glass panel.

13. (canceled).

14. (canceled).

15. (canceled).

16. (canceled).

17. (canceled).

18. (canceled).

19. (canceled).

20. (canceled).

21. (canceled).

22. (canceled).

23. (canceled).

24. (canceled).

25. (new) The method of claim 1 wherein said dense region and said isolated region represent trenches in a dual-damascene application.

26. (new) In a plasma processing chamber, a method for processing a dual-damascene substrate, comprising:

providing said substrate having thereon a low-K dielectric layer, said low-K dielectric layer having therein trenches located in at least one dense region and at least one isolated region, said dense region having a higher density of trenches than a density of trenches in said isolated region, said substrate further having a blanket-deposited layer of photo resist material deposited over said low-K dielectric layer in into said trenches;

flowing an etchant gas mixture comprising oxygen, and an optimal flow percentage of fluorine containing gas into said plasma processing chamber;

striking a plasma using said etchant gas mixture;

etching said blanket-deposited layer of photo resist material using said plasma; and

terminating said etching while some of said photo resist material remains in said trenches, said optimal flow percentage of said fluorine containing gas being selected to leave a substantially uniform thickness of said photo resist material in said one dense region and said one isolated region after said etching is terminated.

27. (new) The method of claim 26, wherein said etchant gas mixture further comprises flow of nitrogen gas.

28. (new) The method of claim 26, wherein said flow of a fluorine containing gas is between about 0.1% and about 5% of said etchant gas mixture.

29. (new) The method of claim 26, wherein said flow of a fluorine containing gas is between about 1% and about 2% of said etchant gas mixture.

30. (new) The method of claim 26, wherein said fluorine containing gas is CF_4.

31. (new) The method of claim 26, wherein said fluorine containing gas is CHF_3

32. (new) The method of claim 26, wherein said fluorine containing gas is CH_2F_2.

33. (new) The method of claim 26, wherein said fluorine containing gas is CH_3F.

34. (new) The method of claim 26, wherein fluorine containing gas is C_2F_2.

35. (new) The method of claim 26, wherein said substrate is semiconductor wafer.

36. (new) The method of claim 26, wherein substrate is a glass panel.